

## WHAT IS CLAIMED IS:

1. A traffic monitoring system which monitors network traffic in a network in which transmission priority of a packet to be transmitted in the network is changed according to an attribute of the packet, comprising:

a monitor unit which monitors the packet; and  
an accumulate unit which accumulates, for each attribute, traffic information corresponding to the monitored packet.

2. The traffic monitoring system of claim 1, wherein the packet is an IP packet in an IP network, and the attribute of the packet includes at least one of a service class of the IP packet and sub network address of the IP network.

3. A traffic monitoring system which monitors network traffic in an IP network in which an IP packet is transmitted according to a service class which is classified based on Diffserv protocol, comprising:

a monitor unit which monitors the IP packet on the IP network;  
a detection unit which detects at least one of the service class, a source IP address, and a destination IP address of the IP packet;  
and

a classify unit which classifies traffic information based on the detected information.

4. The traffic monitoring system of claim 3, wherein the detection unit determines, from the detected IP addresses, a source sub network address and a destination sub network address, and the system further includes an accumulate unit which accumulates the classified traffic information for each service class and/or for each sub network address.

5. The traffic monitoring system of claim 3, wherein the service class is expressed by DSCP in a header field of the IP packet.

6. The traffic monitoring system of claim 4 further including a monitor manager which performs statistical process on the traffic information accumulated by the accumulate unit for displaying the traffic information, monitoring abnormal status in the network, or capturing trend in the network.

7. The traffic monitoring system of claim 6, wherein the detection unit uses a net mask to determine the sub network addresses, and the monitor manager supplies the net mask to the detection unit.

8. The traffic monitoring system of claim 3, wherein the IP network includes IP routers which are connected each other via links and the traffic monitoring system is included in the IP routers.

9. The traffic monitoring system of claim 4, wherein the accumulate unit accumulates the traffic information in a form of MIB.

10. A traffic monitoring method which monitors network traffic in a network in which transmission priority of a packet to be transmitted in the network is changed according to an attribute of the packet, comprising the steps of:

monitoring the packet; and

accumulating, for each attribute, traffic information corresponding to the monitored packet.

11. The traffic monitoring method of claim 10, wherein the packet is an IP packet in an IP network, and the attribute of the packet includes a service class of the IP packet and sub network address of the IP network.

12. A traffic monitoring method which monitors network traffic in an IP network in which an IP packet is transmitted according to a

service class which is classified based on Diffserv protocol, comprising the steps of:

- monitoring the IP packet on the IP network;
- detecting at least one of the service class, a source IP address, and a destination IP address of the IP packet; and
- classifying traffic information based on the detected information.

13. The traffic monitoring method of claim 12, wherein the detecting step determines, from the detected IP addresses, a source sub network address and a destination sub network address, and the method further includes the step of accumulating the classified traffic information for each service class and/or for each sub network address.

14. The traffic monitoring system of claim 12, wherein the service class is expressed by DSCP in a header field of the IP packet.

15. The traffic monitoring method of claim 13 further including the step of performing statistical process on the accumulated traffic information.

16. The traffic monitoring method of claim 15, wherein the detecting step receives net mask and uses the net mask to determine the sub network addresses.

17. The traffic monitoring method of claim 12, wherein the IP network includes IP routers which are connected each other via links and the traffic monitoring method is incorporated in the IP router.

18. The traffic monitoring method of claim 13, wherein the accumulating step accumulates the traffic information in a form of MIB.

19. A recording medium readable by a computer, tangibly embodying a program of instructions executable by the computer to

perform a traffic monitoring method which monitors network traffic in a network in which transmission priority of a packet to be transmitted in the network is changed according to an attribute of the packet, comprising the steps of:

- monitoring the packet; and
- accumulating, for each attribute, traffic information corresponding to the monitored packet.

20. A recording medium readable by a computer, tangibly embodying a program of instructions executable by the computer to perform a traffic monitoring method which monitors network traffic in an IP network in which an IP packet is transmitted according to a service class which is classified based on Diffserv protocol, comprising the steps of:

- monitoring the IP packet on the IP network;
- detecting at least one of the service class, a source IP address, and a destination IP address of the IP packet; and
- classifying traffic information based on the detected information.